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# CHDS Announces 2012 Essay Competition Winner

Center for Homeland Defense and Security

Naval Postgraduate School, Monterey, California

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# CHDS Announces 2012 Essay Competition Winner

 [chds.us/c/item/778](http://chds.us/c/item/778)

The human body's multi-layered biological defense systems can provide insight into securing increasingly complex information security systems, suggests the winning entry of the Center for Homeland Defense and Security's 2012 Essay Competition.

Dorian Deane, who lives in the Washington, D.C. area, penned the winning entry titled "What Biological Systems Can Still Tell Us About Information Security." Deane has a degree in biology and works as a manager of a security group in the telecommunications sector. His paper was the winning entry among 65 essays.



The prompt for this year's essay was: Identify a theory or insight from a field outside homeland security that has not been applied to homeland security but should be. Deane chose the field of biology, likening the human body's defense mechanism to evolving information security measures.

"I've been working in security for a long time and have been reading background articles lately about microbiome," Deane said. "It's an interesting topic that started me wondering how we dealt with all these invaders in our bodies."

Deane concedes that security professionals have long used biological analogies, such as the immune system, as an inspirational source but generally have not applied that notion any further. His essay outlines the body's multiple lines of defense mechanisms and how the body has evolved to fight some of those perils.

The essay likens two programming languages, Java and JavaScript, to those biological defenders. The former was designed specifically with security in mind and initially outperformed the latter. JavaScript, however, was initially a simple language whose security measures "evolved to fix problems as they arose." That example holds lessons for security.

"By necessity, we must tack on solutions after the fact, thus ensuring that evolutionary measures will one day overtake initial design measures," Deane wrote.

Finalists include:

- Sage Moon, Bothell, Wash., "Fighting Fear Appeal; Adopting Social Psychological Models to Inform Government Risk Communication." Moon is a Program Analyst and Policy Advisor at the Federal Emergency Management Agency (FEMA) in Region X.
- Don Arp Jr., Lincoln, Neb., "The Foraging Tango: The Application of Optimal Foraging Theory to Counterterrorism Activities." Arp is a senior research associate with Nesbitt and Associates.
- John M. Hartzell, Gettysburg, Penn., "Improving Homeland Security Through Loops and Links." Hartzell is county solicitor in Adams County, Penn.

The CHDS Essay Competition was established in 2008. The purpose of the competition is to promote innovative thinking that addresses the objectives outlined in the National Strategy for Homeland Security.

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